AMENDMENTS TO THE CLAIMS

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7. (previously presented) A virtual disk formatting system comprising:

a plurality of mass-storage devices having physical sectors of a first sector length; and

a routing component that provides to external entities a first virtual disk interface to the mass-storage components by mapping each access operations, received from one of the external entities, directed to the first virtual disk interface having virtual sectors of a second sector length to an internal, virtual disk interface with internal-virtual-disk-sectors having a third sector length larger than the second sector length, and then routing the access operations from the internal, virtual disk interface to one or more mass-storage devices of the plurality of mass-storage devices;

wherein the first sector length and the second sector length refer to data-payload lengths of physical sectors.

8. (original) A virtual disk formatting system of claim 7 further including:

including, by the routing component, error detection information within the internal-virtual-disk-interface sectors in order to provide routing-component-mediated error checking.

9. (original) The virtual disk formatting system of claim 8 wherein the error detection information is a longitudinal redundancy check code.

10. (original) The virtual disk formatting system of claim 7 wherein the routing component is an integrated-circuit storage-shelf router.

11. (original) The virtual disk formatting system of claim 10 wherein the storage-shelf router provides a fibre-channel-disk-based virtual disk formatting interface to external processing entities and maps fibre-channel-disk-based access operations to a number of ATA disk drives included in a storage shelf containing the storage-shelf router.

12. (original) The virtual routing system of claim 7 wherein the routing component includes a processor and firmware/software programs that carry out virtual disk formatting.

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19. (previously presented) A method for including additional information in disk sectors of a plurality of mass-storage devices having a first sector length, the method comprising :

    providing a routing component;

    mapping, by the routing component, access operations, received from one of the external entities, directed to a first virtual disk interface having virtual sectors of a second sector length to an internal, virtual disk interface with internal-virtual-disk-sectors having a third sector length larger than the second sector length, and then routing, by the routing component, the access operations from the internal, virtual disk interface to one or more of the plurality of mass-storage devices;

    wherein the first sector length and the second sector length refer to data-payload lengths of physical sectors.

20. (original) The method of claim 19 further including:

    including, by the routing component, within the internal-virtual-disk-interface sectors one of:

    error-detection information;

    additional information that, together with the data contained in the internal-virtual-disk-interface sectors, provides an encrypted version of the data directed to the first virtual disk interface by external processing entities; and

    error-detection and error-correction information.